

E-Book Development Guidelines for Creating Canva-Based Learning Media to Improve the Professional Competence of Elementary School Teachers

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ABSTRACT

Teachers' professional competence plays an important role in designing effective learning, utilizing technology, and developing innovative materials to improve the quality of teaching and student achievement in the era of modern education. This study aims to describe the assessment of material experts, media experts, and practitioners, and to analyze the effectiveness of developing an e-book guide to creating Canva-based learning media to improve the professional competence of elementary school teachers. In preparing the research, it is necessary to prepare several supporting instruments, including e-book validation instruments, test instruments, interview instruments, and a prototype of the final product in the form of an e-book guide to creating PowerPoint learning media using Canva for elementary school teachers. The research method used is Research and Development (R&D) with the ADDIE model (Analysis, Design, Develop, Implement, and Evaluate). The research was conducted in the Wakhidin Sudirohusodo Cluster, Mandiraja District. Data collection used questionnaires, tests at the implementation stage, and interviews with experimental and control class strategies by holding training to produce products and measure the improvement of the professional competence of elementary school teachers.

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1. INTRODUCTION

In 21st century learning, learners and teachers must follow the development of Information and Communication Technology (ICT) that is taking place (Rejeki et al., 2023). The availability of Information and Communication Technology (ICT) such as laptops and LCD projectors in schools is indeed important for updating the education system. However, the benefits will only be felt if teachers are proficient in using them. Educators need to master how these devices work, integrate them into the curriculum, and create digital learning media.

In the process of creating learning media, teachers have several approaches that can be taken: [1] Teachers can use existing learning media that have been proven effective without making significant changes. This approach can save time and effort, especially if resources are limited. However, it is important to ensure that this use is in accordance with copyright. [2] Teachers can take existing learning media and adapt them to the needs of their class. This can involve changing the content, format, or presentation method to better suit specific learning

objectives or student characteristics, a term known as TCM (Take, Copy, and Modify). [3] Teachers can create new learning media from scratch, tailored to the needs of their class. This approach allows for full creativity, but may require more time, effort, and technical skills.

Effective learning is not only limited to achieving learning objectives, but also includes the quality of the learning process. This quality depends on the extent to which the teacher's ability to design a directed learning experience, so that it can support the achievement of the expected learning outcomes (Agustina et al., 2022). Careful planning allows teachers to design more dynamic and interactive learning strategies, considering the diverse needs and learning styles of students. This includes the selection of varied teaching methods, preparation of relevant materials, and the arrangement of activities that actively involve students in the learning process.

In the Minister of National Education Regulation number 14 of 2007 concerning Academic Qualification Standards and Teacher Competencies, four main competencies that must be mastered by a teacher are stipulated: Pedagogical, Personality, Social, and Professional competencies. Professional competency is one of the important aspects that must be possessed by a teacher, because professionalism in their field of expertise is the main key in carrying out educational tasks effectively (Yeni Karneli, 2021). In Professional competency, teachers are required to be able to develop learning materials creatively and utilize information and communication technology, both for communication and for self-development. This ability is very important in today's digital era, where technology can be an effective tool to enrich students' learning experiences. By mastering technology, teachers can create learning that is more dynamic, interactive, and relevant to students' daily lives.

The use of laptops in learning activities helps teachers in displaying learning media as a teaching aid, so that learning will be more interesting for students. Learning media can foster interaction or communication between teachers and students so that learning objectives will be easily achieved as stated by Susanti et al., (2020) Learning media are various tools and resources that are used to convey information (lesson materials) to students. The selection and use of the right media is very important in teaching and learning activities because the right media can determine success in achieving learning objectives.

Andriani et al., (2023) stated that the contribution of technology can help learning activities become more varied and provide convenience for students in understanding the material presented. Of course, teachers must be open and willing to learn to follow current technological developments so as not to be left behind by students.

To cope with the rapid technological advances, the government is not sitting idly by. Through the Regulation of the Secretary General of the Ministry of Education, Culture, Research and Technology Number 16 of 2021 concerning Technical Instructions for the Utilization of Basic Education Data for Learning Service Access Accounts which provides facilities in the form of learning accounts containing account names (user IDs) or known as belajar.id accounts issued by the Ministry of Education, Culture, Research and Technology and can be used by students, educators, and education personnel as electronic-based learning accounts.

The purpose of creating a learning account given to students, educators, and education personnel is to 1) Support the learning process in Education Units through the application of technology. 2) Increase connectivity between learning services. This learning account also provides flexibility in accessing other platforms, especially platforms developed by the Ministry of Education, Culture, Research and Technology that can be used for learning activities, including 1) Google Workspace for Education, 2) Merdeka Mengajar Platform, 3) Rumah Belajar, and 4) Canva for Education.

The most popular platform used to create learning media is Canva for Education. According to Nurfitriyanti et al., (2022) Canva is an online design platform that can be used by educators to create visual learning materials. With its various features and ease of use, Canva is the right choice for teachers in developing creative teaching materials.

Gugus Wahidin Suirohusodo is located in Mandiraja District, Banjarnegara Regency, which has a secretariat at Elementary School 2 Somawangi, consisting of 51 class teachers from 9 work units. Researchers conducted observations by sharing Google forms to obtain data in the field which were distributed via the Gugus Wahidin Sudirohusodo Teacher Working Group Whatsapp group.

From the results of observations conducted using Google Forms on December 21, 2024 in Gugus Wahidin Sudirohusodo, Mandiraja District, Banjarnegara Regency, Central Java, obstacles were found, lack of use of Canva to create learning media, the data found were: [1] Most teachers already have laptops. [2] Most have taught using Canva-based learning media using laptops and LCD projectors. [3] Most teachers have not been able to create their own Canva-based learning media. [4] Most teachers have not been able to create Canva-based learning media designs in a relatively short time. [5] Most teachers have not been able to easily create Canva-based learning media designs for all subjects. [6] Only a small number of teachers can create Canva-based learning media with new ideas that have never been created by others. [7] Most teachers need training and guidance in creating Canva-based learning media.

The lack of ability to develop learning media by utilizing Canva is due to the absence of a guidebook in an effort to facilitate teachers to develop learning media, a guidebook is one of the effective tools. As stated by

Talaumbanua, (2022:97) a guidebook is a source of information that aims to direct and guide its readers in carrying out the instructions contained therein. The success of a guidebook can be measured by the ability of its readers to understand and apply the instructions given effectively.

As book technology advances, the use of books has shifted to electronic books that we know as e-books. Arifah Khairrani, (2019) stated that e-books or electronic books are practical and useful learning tools for students and teachers. As a learning medium, writing guidebooks using e-books can provide unlimited reference sources. Unlike printed books, e-books can contain multimedia content, making teaching materials more interesting. e-books are also easier to distribute through various digital media. e-books also provide an opportunity for content creators to share information in a more interesting and interactive way. In addition, e-books offer better information protection than printed books. With all its advantages, e-books are an effective and efficient modern learning solution.

This guide e-book also offers an explanation of various advanced features that can be integrated into the learning media. Teachers will be guided through the steps of adding interactive elements such as animated images, sounds, and videos, which can increase the appeal and effectiveness of the learning media. Furthermore, this guide also includes instructions on how to insert interactive quiz links, which can be used to evaluate student understanding in real-time and can be accessed by students via smartphones considering the tendency of students to spend more time using Android compared to books, causing students to be more active on their Androids (Heswari & Patri, 2022).

The development of an e-book guide to creating media using Canva for Elementary Schools in the Wahidin Sudirohusodo Cluster is necessary for several important reasons: [1] The availability of supporting infrastructure such as laptops, LCD projectors, and internet connections for learning media has been evenly distributed. [2] The majority of teachers have not used Canva as a tool to produce learning media. [3] Most teachers still do not understand the techniques for creating learning media using the Canva platform. [4] The level of understanding and knowledge of teachers regarding Canva still varies greatly. [5] E-books and Canva can be easily accessed using laptops or smartphones. [6] In line with the PemanTIK program of the Banjarnegara Regency Youth and Sports Education Office to accelerate digital transformation in terms of the use and utilization of ICT, especially in learning and access to education services through learning accounts (belajar.id). [7] No previous research has been conducted.

Based on the considerations that have been described, this research was initiated with the main objective of developing an e-book that will function as a guide in creating learning media using Canva. The development of this e-book guide is a response to the needs identified among educators, especially at the Elementary School level.

Furthermore, this e-book is designed to bridge the existing knowledge gap, provide step-by-step guidance, and empower educators to optimize Canva's potential in creating engaging learning materials that meet the needs of modern students. Thus, this research not only aims to produce a product, but also to open up opportunities for pedagogical innovation and improving the quality of learning in the digital era.

Based on this background, the author conducted research to develop an E-book guide to creating Canva-based learning media to improve the professional competence of elementary school teachers.

2. RESEARCH METHODS

The type of research used in the development of this e-book guide to creating learning media uses a research and development design or Research and Development (R&D). According to Saputro, (2021:7) the Research and Development (R&D) method is a research approach that is very suitable for projects that aim to create innovation or improve existing products. This method allows researchers to produce new discoveries or improve the quality of existing products through a systematic development process.

Research and Development (R&D) method is a very effective approach to research aimed at creating innovation or improving existing products. This method allows researchers to produce new discoveries or improve the quality of existing products through a systematic development process. In the context of education, R&D becomes an important tool for developing and testing various educational products, ranging from curriculum, teaching methods, to learning aids.

In addition to its function in product development, the R&D method also plays an important role in advancing our understanding of fundamental phenomena in education and improving educational practices. Through basic research, this method helps to discover new knowledge about fundamental phenomena in education. Meanwhile, through applied research, R&D contributes to the improvement of existing educational practices. Thus, the R&D method does not only focus on product development, but also on improving theoretical and practical understanding in the world of education.

This development research aims to assess the feasibility and effectiveness of a product in the form of an e-book. To achieve this goal, the researcher adopted the development model (Branch, 2009) namely ADDIE

(Analysis, Design, Develop, Implement, and Evaluate) as a methodological framework. The ADDIE model was chosen because of its ability to provide a systematic structure for the product development process. By using this model, the researcher can ensure that each stage of the development of the guidebook is carried out in a structured and directed manner, starting from needs analysis to final evaluation.

The ADDIE model has proven effective in building training program tools and infrastructure. This model consists of five interrelated stages: Analysis, Design, Development, Implementation, and Evaluation. Each stage has a specific focus and purpose that contributes to the overall development of the product. By following these stages systematically, researchers can ensure that the e-book developed not only meets the eligibility standards, but is also effective in its use after being assessed by material experts, media experts, and 6 teachers as e-book users. This approach allows researchers to make adjustments and improvements during the development process, resulting in a quality final product as a means of developing learning media to improve their competence.

Researchers use development procedures by adapting the ADDIE development model, which is a model consisting of five steps including analysis, design, development, implementation, and evaluation Tegeh, I. M., Jampel, I. N., & Pudjawan, (2014:42) This series of procedures is a series that cannot be separated just like that. They are a unity that is integrated as a process in conducting development research (Yudi Hari Rayanto & Sugianti, 2020)

Researchers made modifications to the procedure for developing a Canva-based learning media creation guidebook to improve the creativity of elementary school teachers. This modification was carried out by adjusting the five stages of development according to needs, namely:

A. Analysis Stage

The first step in developing a Canva-based learning media creation guidebook is data collection. This process is carried out by distributing questionnaires via Google Forms to teachers in Gugus Wahidin Sudirohusodo, Mandiraja District. This questionnaire is distributed via WhatsApp groups to identify potential and existing problems. The main objective of this stage is to determine the direction of product development that is in accordance with the needs and conditions in the field.

From the results of distributing questionnaires using Google Forms, the following data were obtained: (1) most teachers already have computers or laptops; (2) most teachers have never used presentation design to create learning media; (3) most teachers have not used Canva as a means of compiling learning media; (4) most teachers need training in creating learning media. In addition to collecting data through questionnaires, researchers also conducted a review of previous development studies. The results of this analysis revealed the need to develop an e-book that functions as a guide to creating Canva-based learning media. The main objective of developing this e-book is to improve the professional competence of Elementary School teachers in the Wahidin Sudirohusodo Cluster in designing and creating innovative and effective learning media.

B. Design Stage

1) Product Design

The next stage in the development process is designing the Canva presentation creation guide e-book. This step begins with creating a design that describes the structure and content of the guidebook. The developer first drafts the material as the initial foundation for creating the guidebook. After that, the process continues with the preparation of a feasibility instrument to evaluate the quality and effectiveness of the developed e-book. This design stage is a step that forms the basis for the development of the Canva media creation guide e-book and is continued with the preparation of a feasibility instrument.

2) Developing Validation Assessment Instruments E-book Guide

To assess the validity of the media creation guide e-book, the researcher used an instrument in the form of an assessment questionnaire. This process began with the preparation of a product assessment questionnaire instrument grid. The questionnaire was designed in a checklist format and equipped with columns for criticism and suggestions. This instrument was intended for three groups of assessors: material experts, media experts, and practitioners. To ensure the quality and accuracy of the instrument, the researcher consulted and validated with lecturers at the Muhammadiyah University of Purwokerto.

C. Development Stage

In this stage, the researcher carried out the development of the e-book design and design that functions as a guide for creating Canva-based learning media. The main objective is to improve the creativity of elementary school teachers in designing learning media. This development process includes several key aspects, namely designing an attractive cover, compiling book content, and a structured design for each part of the book. This entire process is carried out systematically and in stages, ensuring that each element of the e-book is carefully designed to meet the specific needs of teachers in improving their skills in using Canva for learning media:

1) Production

a) *E-book Types*

The Canva-based e-book creation guide that is being developed will use an interactive flip book format. The design of this e-book includes several main components, namely an attractive book cover design, structured content arrangement, and selection of the right type of writing for the content and title of the e-book. The flip book format was chosen to enhance the user experience, allowing teachers to explore the e-book in a more accessible way, similar to reading a physical book but with the advantages of digital features.

b) *E-book Contents*

This guide e-book is designed to help elementary school teachers create media using Canva as an effective learning media creation tool. Starting with an attractive cover, this book is equipped with a Foreword explaining the purpose and benefits of the guide, as well as a Table of Contents that makes it easy for readers to find the information they need and materials that include:

[1] Understanding Canva [2] Canva Features [3] Signing in to a Canva account [4] Creating an opening slide [5] Modifying the opening slide [6] Creating and modifying the main menu slide (Home) [7] Creating and modifying slides on the main menu [8] Creating and modifying slides for materials [9] Creating names on slides [10] Linking slides [11] Creating transitions between slides [12] Displaying slides [13] Sharing slides [13] Downloading slides [14] Stages of e-book production.

In the process of developing and designing a media creation guidebook, researchers utilized the advantages of Microsoft Word 2021 as the main software. This application was chosen to work on all aspects of the book, from designing an attractive cover to compiling internal content in a structured manner.

After the initial draft, the guide e-book entered the expert validation stage to obtain input, criticism, and evaluation of the design that had been developed. This process involved three experts from various backgrounds: a lecturer from the Postgraduate Program of Muhammadiyah University of Purwokerto as a material expert, a Central Java Technology Ambassador who acted as a media expert, and a teacher from Gugus Wahidin Sudirohusodo in Mandiraja District, Banjarnegara Regency, who acted as a practitioner expert. After receiving assessments from the three experts, the evaluation results were analyzed thoroughly and used as a basis for making product improvements (revision I).

To assess the readability of the e-book guide, an individual trial was conducted involving three teachers with different levels of computer skills in the Wahidin Sudirohusodo Cluster. The selection of participants included one teacher with high computer skills, one teacher with medium skills, and one with low skills, in order to obtain diverse perspectives. The main focus of this test was to identify and reduce obvious errors in the guide, especially related to the clarity of images and text. After the trial, the evaluation results were analyzed thoroughly to be used as a basis for improving the e-book guide (revision II).

The next stage involved a small group trial of six teachers in Gugus Wahidin Sudirohusodo, with a composition of two teachers with high, two medium, and two low computer skills. This test aimed to identify initial problems, especially writing errors, that might arise when the Canva learning media creation guide e-book was used. Teachers who had participated in the previous individual trials were not involved again in this stage, in order to maintain objectivity and expand the scope of feedback. The evaluation results from this small group trial were then carefully analyzed and used as a reference for further improvements to the guide e-book (revision III).

2) Implementation Stage

At this stage, the researcher conducted a product trial to assess the feasibility and effectiveness of the Canva media creation guidebook that had been developed. The main purpose of this trial was to collect comprehensive data on teachers' responses and assessments of the guide. This process was designed to obtain the information needed to empirically determine the level of product effectiveness. By adopting a field trial approach, the researcher sought to ensure that the guidebook e-book had undergone thorough testing in real conditions, so that it could be relied on as a valuable resource for educators in developing their learning media using Canva.

The field trial was conducted on teachers at two public elementary schools in the Wahidin Sudirohusodo Cluster, involving a total of 12 teachers divided into experimental and control classes in the Teacher Working Group. The purpose of this trial was to collect data on the effectiveness of the guide e-book, as measured by the results of the post-test on mastery of the e-book material and interviews. After the data was collected, a thorough analysis was carried out, and if necessary, a final revision (revision IV) was carried out.

3) Evaluation Stage

Evaluation has been a part that has been carried out since the development stage, starting with the assessment of the validity of the guide e-book by experts and practitioners. At this stage, the focus of the evaluation shifted to provide an assessment of the guide e-book that had been tested by teachers. However, this evaluation was more emphasized on measuring the effectiveness of the guide e-book during implementation (field

trial), by considering suggestions and post-test results from teachers.

To measure the effectiveness of the development of the Canva learning media creation guide e-book product for elementary school teachers, researchers used two main instruments. First, a structured interview sheet that allows for the collection of qualitative feedback. Second, post-test questions that function as quantitative references. These two instruments are used by researchers and teachers to evaluate the extent to which the objectives of developing the guide e-book have been achieved, providing an overview of the effectiveness of the product in the context of real use in the school environment.

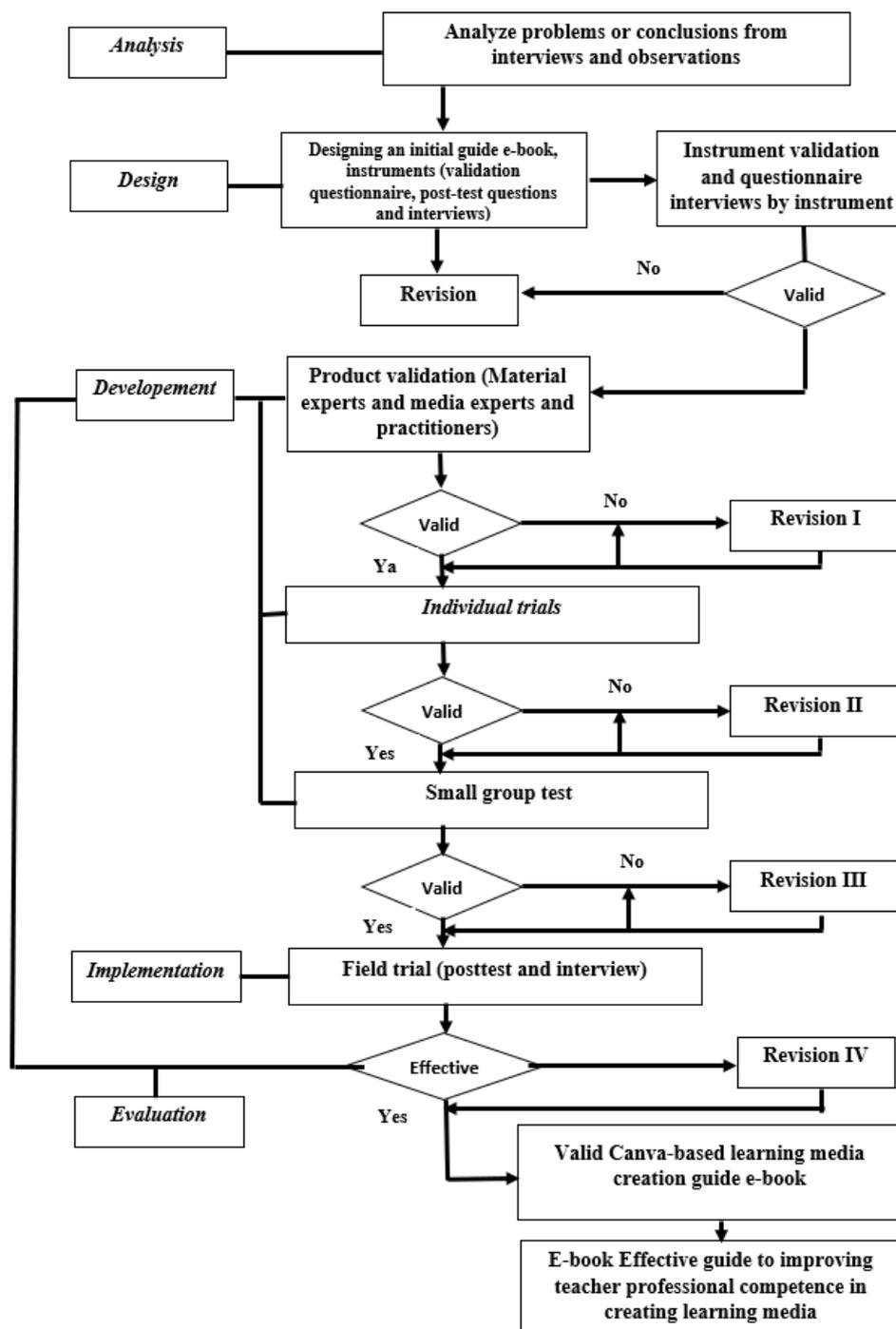


Figure 1. Development Procedure

3. DATA ANALYSIS

Qualitative data in the form of criticism and suggestions from material experts, media experts, and practitioners as well as interviews with teachers are described in the process of developing a guidebook for making Canva-based learning media. This study uses a quantitative data analysis method in the form of numerical scores obtained from the validation questionnaire sheet and teacher post-test assessment. The validity test of the E-book guide to making Canva-based learning media is determined based on the validation results carried out by material experts, media experts and practitioners using a validation sheet with three possible results, namely feasible to use, feasible to use with revisions and not yet feasible to use. The validity data of the E-book guide to making Canva-based learning media was analyzed using descriptive percentage analysis.

Pretest and posttest were conducted by involving 12 teachers from grades 1 to 6 in Gugus Wakhidin Sudirohusodo, divided into control and experimental classes. Data Analysis of Posttest Results was used to evaluate the effectiveness of the E-book guide through the experimental method. This study was conducted by comparing the results between the control and experimental classes.

The measurement of effectiveness is done by comparing the posttest scores of the two classes. The criteria for product effectiveness are determined based on the comparison of scores: if the posttest score of the experimental class is significantly higher than that of the control class, then it can be concluded that the product (E-book guide) used in the study is effective.

Through structured interviews, researchers collected suggestions from teachers which were then analyzed to identify product revision needs. The interview data was used as the main reference to evaluate the effectiveness of developing an E-book guide to making Canva-based learning media which aims to improve the professional competence of Elementary School teachers.

4. CONCLUSION

This research and development aims to produce an e-book guide to creating Canva-based learning media to improve the professional competence of Elementary School teachers in Gugus Wahidin Sudirohusodo, Mandiraja District, Banjarnegara Regency. Adapting the ADDIE (Analysis, Design, Develop, Implement, Evaluate) model, this research goes through the stages of analyzing teacher needs related to the use of Canva, designing the structure and content of the e-book and validation instruments, developing an e-book in flip book format with expert validation and readability trials and small groups, implementing field trials on teachers, and evaluating the effectiveness of the e-book through post-tests and interviews. Qualitative and quantitative data were analyzed to measure the feasibility and effectiveness of the e-book as a guide that improves teacher competence in creating innovative learning media using Canva.

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